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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/757,389	01/15/2004	Hiroshi Mizuguchi	042005	4948

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EXAMINER

BASINGER, SHERMAN D

ART UNIT PAPER NUMBER

3617

DATE MAILED: 04/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/757,389	<b>Applicant(s)</b> MIZUGUCHI ET AL.	
	<b>Examiner</b> Sherman D. Basinger	<b>Art Unit</b> 3617	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2-10 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5, 9 and 10 is/are allowed.
- 6) ☒ Claim(s) 2-4 and 6 is/are rejected.
- 7) ☒ Claim(s) 7 and 8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 July 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>12/14/05</u> . | 6) <input type="checkbox"/> Other: ____.   |

### DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on December 14, 2005 has been entered.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claim 6 is rejected under 35 U.S.C. 102(e) as being anticipated by Takada et al 672.

Takada et al discloses a shift mechanism for an outboard motor mounted on a stern of a boat and

having an internal combustion engine 16 at its upper portion and a propeller 22 at its lower

portion that is powered by the engine to propel the boat, comprising

an actuator 42 installed in the outboard motor;

a shift rod 90 installed in the outboard motor and connected to the actuator to be rotatable by the actuator;

a shifter clutch 88 installed in the outboard motor and connected to the shift rod 90, the shifter clutch being movable by the shift rod from a neutral position to engage with at least one of a forward gear 86F that allows the boat to be propelled in a forward direction

and a reverse gear 86R that allows the boat to be propelled in a reverse direction opposite to the forward direction;

a controller 20 controlling the actuator to rotate the shift rod such that the shifter clutch moves from the neutral position to engage with one of the forward gear and the reverse gear, corresponding to an inputted shift instruction made by the operator, to effect shift; and

a shock mitigator (see [0057]) mitigating shock generated during the shift; wherein the shift mechanism further includes

a reduction-gear mechanism (figure 9) connected to the actuator to reduce a rotation of the actuator and transmit it to the shift rod; and

a case 82 accommodating the actuator and the reduction-gear mechanism as a unit at a position immediately above the shift rod.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 59-073627 in view of Kawai et al.

Japan 627 discloses a shift mechanism for an outboard motor mounted on a stern of a boat and

having an internal combustion engine at its upper portion and a propeller 19 at its lower portion that is powered by the engine to propel the boat, comprising an actuator 45 installed in the outboard motor;

a shift rod 44 installed in the outboard motor and connected to the actuator to be rotatable by the actuator;

a shifter clutch 28 installed in the outboard motor and connected to the shift rod, the shifter clutch being movable by the shift rod from a neutral position to engage with at least one of a forward gear that allows the boat to be propelled in a forward direction and a reverse gear that allows the boat to be propelled in a reverse direction opposite to the forward direction;

a shock mitigator 30A and 30B mitigating shock generated during the shift;

wherein the shock mitigator comprises

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a plurality of gear projections 22, 21 each formed at a portion of the forward gear and the reverse gear; and

a first group of clutch projections 30A formed on each end of the shifter clutch and having a first height and a second group 30B of clutch projections formed on each end of the shifter clutch having a second height lesser than the first height, such that the first group of clutch projections first mesh with the gear projections so as to bring clutch rotation in synchronism with gear rotation, and then the second group of clutch projections additionally mesh with the gear projections; wherein the first group of clutch projections 30A are formed on each end of the shifter clutch with a uniform space there between, whilst the second group of projections 30B are formed on each end of the shifter clutch with a uniform space there between; and wherein the first group of clutch projections 30A and the second group of clutch projections 30B are formed on each end of the shifter clutch alternatively.

Japan 627 does not clearly disclose a controller controlling the actuator to rotate the shift rod such that the shifter clutch moves from the neutral position to engage with one of the forward gear and the reverse gear, corresponding to an inputted shift instruction made by the operator, to effect shift. Note the controller 18 of Kawai et al. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said

subject matter pertains to provide a controller similar to that of Kawai et al to the outboard motor of Japan 627 to control the actuator to rotate the shift rod such that the shifter

clutch moves from the neutral position to engage with one of the forward gear and the reverse gear, corresponding to an inputted shift instruction made by the operator, to effect shift.

Motivation to do so is to provide a remote controller with respect to the actuator 42 of Japan 627.

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takada et al 672 in view of Japan 59-073627.

If Takada et al does not disclose the shock mitigator mitigating shock generated during the shift, note the projections 30A and 30B of Japan 627. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains to provide the clutch of Takada et al with projections similar to 30A and 30B of Japan 627 to mitigate shock generated during the shift. Motivation to do so is given in the PURPOSE of Japan 627.

***Allowable Subject Matter***

7. Claims 5, 9 and 10 allowed.

8. Claims 7 and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Conclusion***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sherman D. Basinger whose telephone number is 571-272-6679. The examiner can normally be reached on Monday through Friday, 5:30 a.m. to 2:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Samuel J. Morano can be reached on 571-272-6684. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Sherman D. Basinger



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Primary Examiner  
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